

Description

Safe Compactible Play Structure

CLAIMING BENEFIT OF PROVISIONAL APPLICATION

[0001] This application claims the benefit of U.S. Provisional Application No. 60/490,919 filed on 07/30/2003.

BACKGROUND OF INVENTION

[0002] This invention is in the field of amusement devices, specifically: body slides; play area climbing arrangements; foldable toy habitations; devices including container for storing their parts; and play structures including safety enclosures and/or safety mats.

[0003] Slides for children are well known.

[0004] Typically the slide, including its climbing feature, is constructed of rigid material. Rigid slides may be less fun than a flexible sheet slide. Using rigid material for a slide also limits the ways in which it can be compacted.

[0005] Slide toys typically do not come with integrated safety mats for the bottom end of the slide and bottom end of the climbing feature, and parents may neglect to add

safety surfaces when purchasing slides.

[0006] Slides typically do not come with fall barriers, apart from low guides that can easily be crossed. This increases the area of the support surface that may receive a falling child, and therefore increases the area needing padding.

[0007] Slides toys typically locate the low end of their climbing features far from the low end of their slides. This reduces the lesser danger of child-to-child collision, while requiring a greater amount of the support surface be protected against the greater danger of child to support surface collision. The Consumer Product Safety Commission's "Special Study: Injuries and Deaths Associated with Children's Playground Equipment", April 2001, has relevant safety statistics.

[0008] Children often neglect a slide's climbing feature, and instead climb up and down the sliding surface. Slides typically do not offer a fun way to descend their climbing feature, to complement to the fun children have climbing the sliding surface.

[0009] The low end of a slide is typically some inches above the support surface, causing the whole structure to be higher, and, in that way, more dangerous and more expensive. On the other hand, a slide ending at the support surface level

may encourage children to use the slide dangerously, as a runway.

[0010] Modern slides are often constructed of hollow rotation-molded plastic members, taking advantage of the economics of plastic. These items are bulky. Plastic is, for some people, less pleasing than cloth or wood. Manufacturing start-up costs are high, as molds must be produced first.

[0011] Fall barriers should be rigid to protect children from impacting rigid objects placed near, or leaning on, the barriers. Connecting a flexible ramp to rigid fall barriers may be difficult.

[0012] Many instances of prior art address one, or a few, of the problems suggested here. I am not aware of any instance of prior art which addresses all these problems.

BRIEF SUMMARY OF THE INVENTION

OBJECTS OF THE INVENTION

[0013] The object of the invention is to provide: a flexible, therefore more fun, play ramp; a climbing feature which can also serve as a bumpy slide; a low friction slide adjacent the climbing feature; and a playroom with a hiding area. And the object is to provide a play structure which largely

contains children playing on it, and to provide a safety mat below the structures open side. And the object is to provide a play structure which can be compacted. And the object is to provide a play structure that can be built with readily available materials, using ordinary tools, and requiring minimal capital investment.

BRIEF DESCRIPTION OF THE INVENTION

- [0014] The invention provides: a ramp with a climbing portion 1b and a sliding portion 1a; a play room 2 at the top end of, and open to, the ramp; a screen 8 partly covering the open side of the play room; vertical fall barriers 4a and 4b along the inclined edges 1l of the ramp; fall barrier liners 6a, attached to the inclined edges of the ramp and extending up the fall barriers; a safety mat 5 at the bottom of the ramp; and a brake 7a and 7b over and in front of the ramp, to discourage children from running down the ramp at full speed, and to discourage children from climbing up and out of the structure. The playroom and the upper end the of the ramp are supported by a base.
- [0015] The ramp, screen, liners and brake are of flexible sheet material.
- [0016] For storage and transport: the ramp, screen, fall barrier liners, brake, and safety mat all stow within the playroom;

upper fall barrier panels close over the front of the playroom; the playroom, with playroom contents, nests within the base; and lower fall barrier panels close over the front of the base.

BRIEF DESCRIPTIONS OF DRAWINGS

- [0017] FIG. 1 – A view of the deployed structure, as seen from a point of view in front, to the left and above. Figure 1 also shows how "left", "right", "front" and "back" are used in this description.
- [0018] FIG. 2 – A view of the deployed structure, as seen from in front of the structure. The brake is not shown. Material covering the gap, between the top of the playroom walls and the ceiling, is not shown.
- [0019] FIG. 2a – A detail of a cross section view of the low end of the ramp and its nearby components.
- [0020] FIG. 2b – A detail from the FIG. 2a, showing the construction of a foothold and the attachment of the rear end of the mat to the flap at the low end of the ramp.
- [0021] FIG. 2c – A detail of a cross section of the upper forward edge of the base and nearby components, showing how the forward edge of the playroom floor is padded.
- [0022] FIG. 3 – A view of the deployed structure, as seen from a point of view in front, to the left and above. The brake is

not shown except for the hem at its high rear end. Material covering the gap, between top of playroom walls and the ceiling, is not shown. Material, forming the low rear sections of the low fall barrier panels, is not shown. Material, covering the front face of the base, is not shown.

- [0023] FIG. 3a – A detail from FIG. 3 showing the low forward corner of the low left fall barrier panel, and nearby components.
- [0024] FIG. 3b – A detail from FIG. 3 showing the upper rear corner of the low left fall barrier panel, and nearby components.
- [0025] FIG. 3c – A detail from FIG. 3 showing the left rear corner of the ceiling.
- [0026] FIG. 3d – A detail from FIG. 3 showing the connection of the upper end of the brake to the forward beam of the ceiling unit.
- [0027] FIG. 3e – A detail from FIG. 3 showing the connection of the upper rear end of the ramp sheet to the bottom of the rear playroom wall.
- [0028] FIG. 3f – A detail of the forward upper right corner of the base and of the lower rear corner of the right upper fall barrier panel. Other components are not shown.
- [0029] FIG. 3g – A detail of a section view using a horizontal cut

through the forward edge of the playroom right wall, showing the manner of joining the rear edge of a liner to a playroom side wall forward column.

[0030] FIG 4a – The structure after compaction step #6. The brake is not shown. Material covering the gap between the top of the playroom walls and the ceiling is not shown. Material forming low rear section of low fall barrier panels is not shown. Material covering the front face of the base is not shown.

[0031] FIG. 4a1 – A detail, of the underside of the ramp in its compacted form, showing a button in its buttonhole.

[0032] FIG. 4a2 – A section view taken from FIG. 4a1.

[0033] FIG 4b – The structure after compaction step #8. Playroom and base are separated. The brake is not shown. Material covering the gap between the top of the playroom walls and the ceiling is not shown.

[0034] FIG 4c – The structure fully compacted.

[0035] FIG. 5 – Exploded view of the major components of the rigid structure.

[0036] FIG. 5a – Detail of low rear corner of the right playroom wall, as seen from the right.

[0037] FIG. 5b – Detail of low front corner of the right playroom

wall, as seen from the right.

DETAILED DESCRIPTION

CAUTION

[0038] At the time of application for patent, safety testing is not complete. Use caution.

CONFIGURATIONS

[0039] The play structure has two main configurations: deployed (FIG. 1) for use; and compacted (FIG. 4c) for storage or transport. While in the process of being deployed or being compacted, the structure may be in one of many intermediate configurations (FIGS. 4a–4b).

[0040] This description refers to the deployed configuration, except where explicitly stated otherwise.

ORIENTATION

[0041] Figure 1 shows how the terms "left", "right", "front" and "back" are used in this description. The playroom 2 back wall is at the back. The safety mat 5 is at the front. Left and right are from the point of view of a person standing in front of the structure, and facing the structure.

MODERATE DETAIL

[0042] Children, when using this product, play directly: on a

ramp 1a–1b; in a play room 2; and on a safety mat 5.

[0043] The ramp has a climbing portion 1b and a sliding (body slide) portion 1a.

[0044] A low ramp beam 9 holds the low end of the ramp in place.

[0045] A base 3 supports the upper end of the ramp 1e on the base's top forward edge 3b. The top forward edge of the base (excepting its extreme ends) is rounded down and padded, providing a smooth and safe transition from rigid playroom floor 3a to flexible ramp 1a–1b.

[0046] The playroom 2 consists of a rear wall 2a extending up from the top rear edge of the base, and two side walls 2b extending up from near the left and right top edges of the base. The base 3 supports the playroom. The top surface 3a of the base is the floor of the playroom. The forward side of the playroom is open, on the left and the right, to the ramp. Children may hide behind the screen 8 covering, between left and right, the central portion of the playroom front. And the screen reduces the likelihood a climbing child will collide with a sliding child.

[0047] The extreme side ends 3c of the forward edge 3b of the base are not rounded down, nor padded, as they support and grip the forward ends of the playroom side walls 2b.

[0048] The front surface 3l of the base is closed, preventing children from crawling from behind the structure to under the ramp.

[0049] A ceiling unit 10 covers the top of the playroom, preventing children from climbing up over the playroom walls.

[0050] Upper fall barrier panels 4a extend the playroom walls forward, over the left and right edges of the ramp.

[0051] Lower fall barrier panels 4b extend the sides of the base forward, beside the left and right edges of the ramp.

[0052] Any opening (between an inclined edge 1l of the ramp and that edge's adjacent low fall barrier panel 4b), and any gap (between a low fall barrier panel and its adjacent upper fall barrier panel 4a) are covered by the adjacent, left or right, fall barrier liner 6. Each fall barrier liner: is attached directly to its adjacent inclined edge of the ramp; extends up; is draped over the upper and forward edges of its adjacent upper fall barrier panel; and is draped over the forward edge of its adjacent lower fall barrier panel.

[0053] The brake upper portion 7a fills the area between the upper edges 4c of the left upper fall barrier panel and the upper edges 4c of the right fall barrier panel. The brake lower portion 7b fills the area between the forward edges 4d of the left and right upper fall barrier panels. The

brake: discourages children from running full speed down the ramp; prevents them from running, from outside the structure, into the ramp area; and prevents them from climbing, from inside, up over the fall barriers.

[0054] The screen 8 covers the area from the middle of the high end of the ramp, up to the middle of the upper rear edge of the brake, closing a central (between left and right) portion of the front of the playroom.

[0055] A safety mat 5 covers the floor in front of the low end of the ramp, covering all areas of the floor likely to receive the impact of a child descending from the ramp or playroom. The rear end of the safety mat also covers the forward end of the ramp, insulating children from the rigidity of the low ramp beam.

SUGGESTED DIMENSIONS

[0056] A good height for the top surface of the base is 715mm. A good height for the playroom ceiling, measuring from the top surface of the base, is 780mm. A good width for the ramp is 850mm, 425mm for the climbing side and 425mm for the sliding side. A good playroom depth (front to back) is 460 mm. 35 degrees is a good angle for the ramp as it rises up from the floor underneath it. A good length for the safety mat is 900mm. A good width for the

safety mat is 1360mm. A good distance, measured up or down the ramp, between one foothold and the next foothold, is 250mm. These measures assume the product will be used most frequently by well nourished children, aged from 18 months to 60 months old.

GREATER DETAIL

- [0057] The ramp 1a-1b is made from a sheet of strong light flexible material, such as woven, synthetic cloth. Polyester or acrylic cloth can be light, strong, resistant to chemical decay, and not too stretchy. Some fabrics originally intended as awning cloth can be used.
- [0058] The ramp has a hem 1f at its low end, the left and right ends of the hem are open. The low ramp beam 9 is inserted into the hem, securing the low end of the ramp to the low ramp beam.
- [0059] The sheet material of the ramp extends beyond the high end of the ramp, over the top forward edge 3b of the base, and continues rearward over the top surface 3a of the base (playroom floor), to attach to the low end of the rear playroom wall 2a.
- [0060] Refer to FIG. 3e. The high end of the ramp is attached to the playroom rear wall by means of a rod 1h, such as a 1/4 inch diameter aluminum rod. The sheet material of

the ramp is ended, at its upper rear end, with a hem 1i, left and right ends of the hem left open. Loops of webbing 1j are attached to the low end of the playroom back wall (webbing is strong ribbon-like fabric, such as commonly used to construct dog leashes). Portions of the ramp hem, adjacent to the loops, are cut out 1k, allowing the loops to be integrated into the hem. The rod is then inserted through the hem and through the loops.

[0061] Refer to FIG. 2b. The climbing side 1b of the ramp has footholds 1d sewn on. Each foothold is constructed of: a first strip of fabric 1da; a second strip of fabric 1db; and two lengths of 1/2 inch diameter rope 1dd and 1de. Fabric strips are of the same kind of fabric as the ramp. A long edge of the first strip is sewn on to the length of the second strip, on a line halfway between the long edges of the second strip. The two broad edges of the second strip, and the free broad edge of the first strip, are sewn together, forming a seam 1dc. Sewing these edges together forms a double tube. Seam 1dc is sewn down to the ramp, roughly parallel to the low and high ends of the ramp. Pull a rope length 1dd through one tube, and pull another rope length 1de through the other tube, completing the foothold. The lower tunnel (with its rope), prevents the

upper tunnel (with its rope), from flopping down under the foot of a climbing child.

[0062] The sliding portion 1a of the ramp is covered with nylon cloth of a satin weave. Nylon is a relatively low friction substance. The satin weave is oriented for minimum friction along the length of the ramp.

[0063] Refer to FIGS. 4a, 4a1 and 4a2. Buttons 1g, along with tabs 1n with buttonholes, are attached on the underside of the ramp. When buttoned, the ramp is gathered and shortened. These buttons are used only for compaction.

[0064] Refer to FIG. 1. The fall barrier liners 6 can be constructed of material similar to that used for the ramp, but possibly a lighter. Each liner extends from its respective ramp inclined edge 1l, up and forward, then outward over the upper and forward edges of the adjacent upper fall barrier and the forward edge of the adjacent lower fall barrier. The liner continues some way down and back 6b on the outside of the adjacent fall barriers. The material for each liner is sewn into a shape that fits tightly over the respective fall barrier edges. For extra security, the far outer edge of the fall barrier liner may be buttoned to the outside of the structure (buttons not shown).

[0065] Refer to FIGS. 3 and 3g. The rear edge 6c of each liner is

vertical, extending up from near the top forward edge of the base. The rear edge is secured to its respective playroom wall, along the full length of the liner, to prevent any part of a child from getting between the liner and its fall barrier. The rear edge 6c of the liner is hemmed, the hem embedding a string. The playroom includes a column 2d at the forward edge of each side wall. Each playroom forward column has a vertical groove 2e along the length of its inside face. Each groove is partly covered, along its length, with a strip of aluminum 2f. The liner hem, with its embedded string, is fed into the groove, from the top end of the groove. The hem is fed into the groove prior to attaching the top of the brake to the forward ceiling beam (as described below), and prior to attaching the high rear end of the ramp material to the rear playroom wall.

[0066] Refer to FIG. 1. The brake 7a and 7b is constructed of netting fabric, with holes sized too small to provide finger holds. The brake attaches to other components on its left, right and top edges. Conventional cloth is sewn onto the brake on its left right and top edges to facilitate attachment.

[0067] Each brake upper left and upper right edge is sewn to its adjacent liner, at the points 6d where the liner folds over

the upper edge of its adjacent upper fall barrier panel. Each lower left and lower right edge of the brake is attached to its adjacent liner, at the points 6e where the liner folds over the forward edge of its adjacent upper fall barrier panel.

[0068] Refer to FIGS. 3 and 3d. Webbing loops 10e are attached to the forward ceiling beam. The top end 7c of the brake is attached to the forward beam 10d of the ceiling unit, with a rod 7e, in a similar manner as the top end of the ramp is attached to the playroom rear wall. The bottom edge 7d of the brake is approximately level with the top end of the ramp, leaving ample room below the brake for children to enter and egress the ramp area.

[0069] Refer to FIGS. 1 and 2. The screen 8 is constructed of material similar to that of the liners. The low end of the screen is sewn down to the middle of the upper end of the ramp, on a line 8a running left to right. The high end of the screen is sewn to the middle of the high rear end of the brake, on a line running left to right, just forward of the hem used to attach the brake to the ceiling beam. The screen is stretched tight, but not so tight as to greatly deform the brake.

[0070] The upper surfaces of the low ramp beam 9 are covered

with padding, padding not shown.

[0071] The safety mat 5, and also the padding on the upper forward edge of the base and padding attached to the low ramp beam, can be made of closed cell Ethyl Vinyl Acetate (EVA) foam. EVA foam is familiar as the material from which puzzle mats are constructed. In all places where EVA foam is glued, glue similar to UGL brand rubber cement can be used.

[0072] Refer to FIG. 1. The safety mat comprises four segments. A rear segment 5a, as wide as the ramp, is attached to the ramp near the ramp's low end, covering the hem containing the low ramp beam, and extending forward over the floor in front of the low ramp beam. A forward segment 5b abuts the rear segment on the rear segments forward edge, and extends further forward. Each left and right segment 5c covers floor area to the respective, left or right, side of the forward and rear segments

[0073] The rear segment 5a and forward segment 5b are attached to each other by a strip of fabric (not shown) glued to the bottom surfaces of both segments. Each side segment 5c is attached, to the respective side of the forward and rear segments, by jigsaw-puzzle-like interlocking edges 5e.

[0074] Refer to FIGS. 2a and 2b. For attaching the rear segment 5a to the ramp, a cloth flap 1c is sewn to the ramp, a few inches above and rearward of the low ramp beam, at a line 1ca across the width of the ramp. This flap is attached before the nylon satin is attached, and the low end of the satin is attached to the flap rather than to the low ramp area below the flap. On the climbing side, the flap may have a foothold of its own. The flap hangs down to cover the low ramp beam 9 and ramp low hem 1f. A few buttons 1m are sown to the underside of the flap, below the seam connecting the flap to the ramp. Another cloth flap 5f is glued to the rear segment 5a of the mat, extending a short way rearward of the segment. Buttonholes (not shown) are built into this mat flap. The rear end of the rear mat segment is placed over the hem holding the low ramp beam, and under the ramp flap. Buttons are inserted into buttonholes, securing the placement.

[0075] Playroom walls and fall barrier panels can be constructed of wood lengths, and sheets of rigid plastic. Wood lengths are formed into frames, using joining techniques familiar to furniture construction. Poplar wood works well, being an inexpensive hardwood. Plastic sheets cover wall and barrier areas. 1.5mm thick HDPE (high density polyethy-

lene) sheets work well, and can be purchased from plastic distributors. HDPE sheets can be trimmed with a sharp knife. HDPE sheets can be attached to the wood by a large number of small screws.

[0076] Refer to FIG. 2c. The base's forward edge 3b is rounded down and padded, providing a safe transition, from playroom floor, to ramp. The base's top surface is supported by three side-to-side beams: a rear beam 3g, a middle beam 3h; and a forward beam 3i. The forward beam is a little lower than the rear and middle beams. Boards spanning from the rear beam to the middle beam form a rear portion of the playroom floor. Boards 3m spanning from the middle beam to the forward beam help form a forward portion of the playroom floor. This forward portion is angled down as it runs forward, perhaps 22 degrees from horizontal. EVA foam 3d is glued to this forward surface to pad it and give it a rounded shape. First, long strips of EVA foam are glued, left to right, across the width of the forward surface. Thicker strips are used in the middle, thicknesses chosen to produce the correct rounded cross-section. Then a sheet of EVA foam is glued down atop the strips, rounding the sheet around the rounded shape formed by the strips. A long knife trims the EVA sheet. Af-

ter trimming, the rear end 3e of the sheet is flush with the rear portion of the playroom floor, and the front end 3f of the sheet is flush with the vertical forward surface of the forward beam.

[0077] Refer to FIGS. 3f, 5a and 5b. The extreme left and right ends 3c of the base's forward edge are not rounded down, nor padded. Each end has a feature 3j to grip a corresponding feature 2g projecting down from the front end of the respective side playroom wall. And each end has a feature 3k to block, from rearward travel, a corresponding feature 4e projecting down at the low rear corner of the respective upper fall barrier panel. The panel is only blocked when the panel is in its deployed position. The rear left and rear right corners of the base surface also have features (not shown) to grip corresponding features 2h projecting down from the rear outer corners of the playroom back wall 2a.

[0078] The lower parts of the base can be constructed in any number of ways consistent with requirements that: the base be sufficiently strong and rigid; the base be hollow sufficiently to hold the playroom when product is compacted; the rear of the base be sufficiently open so as to slide the playroom in while compacting; and the front of

the base be covered so as to prevent children from crawling under the ramp from the rear.

[0079] Refer to FIGS. 1 and 3. So as to allow the playroom to nest within the base when compacting, the playroom wall upper ends 2c are short of the ceiling, and the ceiling unit 10 folds down. Folded down configuration is best shown in FIG. 4a. The ceiling unit includes two short forward columns 10g, which attach via hinges to corresponding playroom side wall front columns 2d. The ceiling unit short forward columns raise the ceiling 10a to its proper height above the playroom walls. The ceiling folds down at the hinges. A piece of netting fabric is attached to: the top ends of the playroom walls, the ceiling unit rear and side edges, the ceiling unit short columns, and any parts or the playroom front columns extending above the playroom walls. This netting covers the gaps 10b between the tops of the playroom walls and the ceiling. Two struts 10c, a left and a right, support the back end of the ceiling when deployed. The struts are hinged to the tops of the playroom walls, and fixed, at their tops, to the ceiling, with pins 10f. The struts fold forward and down for compaction. The struts are kept to the outside of the gap-filling netting, so as to keep the struts to the outside of

the play area. The upper portion of the rear edge 6c of each liner can be secured to its respective short ceiling column, in the same manner as the rest of the rear edge is secured to the playroom side wall column, except feed the hem in through the bottom, rather than top, of the ceiling column groove.

[0080] Refer to FIG. 4b. Fall barrier panels 4a and 4b can be attached to the playroom and base via hinges. Upper panels 4a close the front of the playroom when compacted, lower panels 4b close over the front of the base.

[0081] Refer to FIG. 3b. Bolts 4f lock the upper edge of each low fall barrier panel parallel to the base sides. The rear end of each bolt runs through holes near the respective top side edge of the base. The front of each bolt runs through holes near the upper edge of its panel.

[0082] A vertical pin, not shown, through the low edge of each upper fall barrier panel and the upper edge of its corresponding low fall barrier panel, fixes the upper fall barrier panel in line with its corresponding lower panel.

[0083] The low rear portion 4i of each low fall barrier panel is constructed of netting rather than rigid plastic. These low rear sections prevent children from crawling under the ramp from the floor area to the left or right of the prod-

uct.

- [0084] Refer to FIG. 3a. The left and right ends of the low ramp beam fit into notches 4h (shown in FIG. 4a) at the low forward corners of the low fall barrier panels. Pins 4g secure the beam ends in the notches.

STEPS TO COMPACT

- [0085] To compact the product, follow the below steps in order (reverse steps to deploy):
- [0086] 1) pull the left and right safety mat segments 5c up, separating them from the two central segments. Place the left and right safety mat segments on the ramp. Fold the rear 5a and forward 5b safety mat segments together at their joint. Move the forward and rear segments, along with the low ramp flap 1c, up and back, pivoting the flap at the seam attaching flap to ramp. Place the forward and rear mat segments on the ramp.
- [0087] 2) remove the pins 4g fixing the low ramp beam 9 ends to the low forward corners of the low fall barrier panels. Bend the low forward corners of the low fall barrier panels out a small ways, freeing the low ramp beam ends from the notches in those corners.
- [0088] 3) Lift the low ramp beam and low end of the ramp up a short way, loosening the liners 6. Pull each liner inwards,

unwrapping them from the fall barrier panel edges. Gently put down the low ramp beam.

[0089] 4) Remove the pins 10f holding the ceiling unit struts 10c to the rear corners of the ceiling. Fold each strut down onto the upper edges of its respective left or right playroom wall. Fold the ceiling unit 10 down and back. After folding down the ceiling unit, the screen 8 will be loose, allowing components to be stowed in the playroom, in front of the ceiling and screen. After folding down the ceiling unit, the top ends of the playroom side wall front end columns are exposed.

[0090] 5) Lift the low ramp beam, along with the low end of the ramp. Place each end of the low ramp beam on the top of the respective playroom side wall front column top end. Any of a number of means can be provided to secure the low ramp beam ends atop the columns, though none is described here. After placing the low ramp beam atop the columns, the ramp is largely inverted, and the underside of the ramp is exposed to the front.

[0091] 6) Gather part of the ramp length so the buttonholed tabs 1n on the underside of the ramp meet the buttons 1g on the underside of the ramp meet, thereby tightening the remaining length between what had been the top end of

the ramp, and the low (now not so low) ramp beam. This tightening process will assure the safety mat, liners, and brake are largely within the playroom. And this tightening will also prevent the portion of the ramp material that covers the playroom floor from sagging when the playroom is later removed from the base. Button the buttons. FIGS. 4a, 4a1 and 4a2 show the configuration at this point.

[0092] 7) Remove the pins, not shown, securing the bottom edges of the upper fall barrier panels 4a to the upper edges of the low fall barrier panels 4b. Close the upper fall barrier panels. This closes the playroom 2. And this frees the projections 4e, and consequently also the playroom, from the stops 3k on the top surface of the base which had prevented the playroom from sliding back over the base.

[0093] 8) Slide the playroom back over the base a short way, freeing the features 2g–2h projecting downward from the playroom side walls. Lift the playroom and its contents, and place the playroom and its contents on the floor. Rotate the playroom 180 degrees so the upper fall barrier panels are now facing rear. FIG. 4b shows the configuration at this point.

[0094] 9) Slide the playroom into the rear of the base.

[0095] 10) Close the low fall barrier panels over the front of the base. FIG. 4c shows the fully compacted configuration.